

Patent claims

1. An insert to be inserted into a casting mold which is used for the casting of metals and has a casting cavity, having a body (3) which extends along a body longitudinal axis (7) and has a body cavity (6), the body (3) being constructed from at least one first shaped body (4), which has a connecting opening (10) by means of which the body cavity (6) can be connected to the casting cavity, and a second shaped body (5) which is placed onto the first shaped body (4), characterized in that the first shaped body (4) is embodied as an energy-absorbing device.
- 15 2. The insert as claimed in claim 1, characterized in that the first shaped body (4) has, or constitutes, a deforming element (8).
- 20 3. The insert as claimed in claim 1 or 2, characterized in that the second shaped body (5) is supported on the first shaped body (4).
4. The insert as claimed in one of the preceding 25 claims, characterized in that the outer envelope of the first shaped body has a substantially tubular or bowl-shaped design.
5. The insert as claimed in one of the preceding 30 claims, characterized in that the deforming element (8) is embodied as a bellows.
6. The insert as claimed in claim 5, characterized in that the bellows has segments (14) which are inclined at an angle (16) of 0° to 80° , preferably 35 30° to 60° relative to the body longitudinal axis (7).
7. The insert as claimed in claim 5 or 6,

characterized in that the extent (17) of the segments (14) between bends (15) of the bellows is between 0.1 and 10% of the extent (11) of the bellows in the direction of the body longitudinal axis (7).
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8. The insert as claimed in one of claims 5 to 7, characterized in that the extent (11) of the bellows in the direction of the body longitudinal axis (7) is between 20 and 80% of the height (12) of the first shaped body (4).
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9. The insert as claimed in one of the preceding claims, characterized in that the first shaped body (4) is formed from an irreversibly deformable material.
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10. The insert as claimed in one of the preceding claims, characterized in that the first and second shaped bodies (4, 5) are formed as one piece.
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11. The insert as claimed in claim 9 or 10, characterized in that the deformable material is a metal.
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12. The insert as claimed in one of claims 9 to 11, characterized in that the deformable material is steel.

30 13. The insert as claimed in claim 12, characterized in that the steel has a carbon content of more than 0.05% by weight.

14. The insert as claimed in one of the preceding claims, characterized in that the first shaped body (4) narrows in the direction of the connecting opening (10).
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15. The insert as claimed in one of the preceding

claims, characterized in that the first shaped body (4) has an annular support face (13) for supporting the second shaped body (5).

- 5 16. The insert as claimed in one of the preceding claims, characterized in that the second shaped body (5) has a centering recess for holding a centering mandrel.
- 10 17. The insert as claimed in one of the preceding claims, characterized in that the insert is embodied as a feeder insert.